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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,155	06/04/2001	Jae-seong Shim	1293.1206	8787
7590 05/17/2006			EXAMINER	
Stein, McEwen & Bui, LLP			NGUYEN, DUNG X	
1400 Eye St., NW				
Suite 300			ART UNIT	PAPER NUMBER
Washington, DC 20005			2611	

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,155

Applicant(s)

SHIM ET AL.

Examiner

Dung X. Nguyen

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 11 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 9 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 - 4, 8, 10, and 11 is/are allowed.
- 6) ☒ Claim(s) 5 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed on October 20, 2005 have been fully considered and are persuasive. However, upon further consideration, a new ground(s) of rejection is made. Claims 6 and 9 have been canceled.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
3. **Claim 7 is rejected** under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 7, the claim is non-enablement because the specification does not show the steps of "dividing the sampling cycle between the two sampling points by the sum of the amplitudes of the two sampling points and multiplying the smaller sample point amplitude by the divided amount".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be

patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claim 5 is rejected** under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al. (US patent # 6,256,003 B1, and further in view of Cloutier (US patent # 5,790,543).

Regarding claim 5, Tsuchiya et al. discloses (figure 4):

- An edge detector detecting edges of the digital signal by inherently determines when signs of consecutive points of the digital signals are different from each other, and in response, outputting first and second edge detecting signals;
- A jitter determined circuit determining the jitter from the first and second edge signals (column 2, lines 27 – 46).

Tsuchiya et al. differs from the instant claimed invention that it does not show the steps of jitter determining circuit determining the jitter from the first and second edge detection signals, and comprising an accumulator accumulating the jitter over a predetermined time, to generate a jitter value for a predetermined time.

However, Cloutier discloses (figure 4B):

- A jitter determining circuit (64) determining the jitter from the first and second edge detection signals, and comprising an accumulator accumulating the jitter over a predetermined time, to generate a jitter value for a predetermined time (column 12, lines 43 – 50).

Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Tsuchiya et al. and Cloutier as providing the requirements of the instant claimed invention because they can provide the apparatus for adjusting the effective jitter value (column 12, lines 40 – 42 of Cloutier).

Allowable Subject Matter

6. **Claims 1 – 4, 8, 10, and 11 are allowed.** The following is a statement of reasons for the indication of allowable subject matter:

Regarding to the claimed invention, the prior art of record fails to show or render obvious of a jitter detecting circuit for detecting a jitter value of a signal from an A/D converter including an edge detector for discriminating signs of two signals derived from continuous sampling points, and outputting the two signals as first and second edge signals, respectively, if the signs are different from each other; a comparator outputting a signal having a smaller absolute value among the first and second edge signals; an operating unit for dividing the smaller absolute value by the sum of the absolute value of the first edge signal and that of the second edge signal; and an accumulator for accumulating outputs of the operating unit during a predetermined period.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (571) 272-3010. The examiner can normally be reached on Monday through Friday from 8:00 AM to 17:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Fan, Chieh M. can be reached on (571) 272-3042. The fax phone numbers for this group is (571) 273-3021.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

DXN

May 01, 2006


CHIEH M. FAN
SUPERVISORY PATENT EXAMINER